

From glowbugs@theporch.com Mon Jan 6 13:43:51 1997
Return-Path: <glowbugs@theporch.com>
Received: from uro (localhost.theporch.com [127.0.0.1])
by uro.theporch.com (8.8.4/AUX-3.1.1)
with SMTP id NAA08892;
Mon, 6 Jan 1997 13:38:01 -0600 (CST)
Date: Mon, 6 Jan 1997 13:38:01 -0600 (CST)
Message-Id: <199701061938.NAA08892@uro.theporch.com>
Errors-To: ws4s@infoave.net
Reply-To: glowbugs@theporch.com
Originator: glowbugs@theporch.com
Sender: glowbugs@theporch.com
Precedence: bulk
From: glowbugs@theporch.com
To: Multiple recipients of list <glowbugs@theporch.com>
Subject: GLOWBUGS digest 406
X-Listprocessor-Version: 6.0c -- ListProcessor by Anastasios Kotsikonas
X-Comment: Please send list server requests to listproc@theporch.com
Status: 0

GLOWBUGS Digest 406

Topics covered in this issue include:

- 1) 807's for sale
by Kim Herron <kherron@voyager.net>
- 2) Bob Roehrig, K9EUI
by "Brian Carling" <bry@mail1.mnsinc.com>
- 3) Re: 6SL7 Sensitive to light!
by "Brian Carling" <bry@mail1.mnsinc.com>
- 4) Re.807's for sale
by Kim Herron <kherron@voyager.net>
- 5) 807's for sale
by Kim Herron <kherron@voyager.net>
- 6) Heathkit Test Gear
by w8lrm@qtm.net
- 7) Uses for a BC-221?
by mjsilva@ix.netcom.com (michael silva)
- 8) 6V6 bias by Hank van Cleef
by Conard Murray <ws4s@InfoAve.Net>
- 9) Re[2]: Vfos and what would YOU do for a good general one?
by "Cory Hine" <hinec@ccgate.dl.nec.com>
- 10) Re[4]: Vfos and what would YOU do for a good general one
by "Cory Hine" <hinec@ccgate.dl.nec.com>
- 11) Re: Little hummer
by larrys@fmis02.nsc.com (Larry Szendrei, NE1S)
- 12) Re: Uses for a BC-221?
by rdkeys@csemail.cropsci.ncsu.edu

- 13) Re: TV-7 tube tester fuse lamp bulb --- what is it?
by Roy Morgan <morgan@speckle.ncsl.nist.gov>
- 14) Re[2]: Modulation and the Push-Pull Amp
by mack@mails.imed.com
- 15) Re: Uses for a BC-221?
by "Brian Carling" <bry@mail1.mnsinc.com>
- 16) Re: Receiver building help...
by Kevin Pease <hamradio@mm1001.theporch.com>
- 17) Re: Uses for a BC-221?
by rdkeys@csemail.cropsci.ncsu.edu
- 18) Re: NC-183 Restoration
by TMOLL@aol.com

Date: Sun, 5 Jan 1997 15:28:10 -0500 (EST)
From: Kim Herron <kherron@voyager.net>
To: Boatanchors@theporch.com
Cc: Glowbugs@theporch.com
Subject: 807's for sale
Message-ID: <199701052028.PAA10057@vixa.voyager.net>

Hi Gang,

I am trying to recover from the purchase of three distributor's stock of vacuum tubes. One of the things that I've got here and have no need of is a box full of 807's.

They are NEW RCA in boxes and JAN RCA and a few Westinghouse. I have a total of 20 tubes that need a new home. I'd like to sell them as a lot. \$60.00 will get the whole thing with the shipping. Do I have any takers?? Please help me keep my scalp and get my wife to let me stay in the house. It's cold and wet here in Michigan!!

KIM
kherron@vixa.voyager.net

Date: Sun, 5 Jan 1997 14:43:29 +0000
From: "Brian Carling" <bry@mail1.mnsinc.com>
To: glowbugs@theporch.com
Subject: Bob Roehrig, K9EUI
Message-ID: <199701052243.RAA23394@news2.mnsinc.com>

Ooops - does anyone have the e-mail address for K9EUI?
Bob are you reading this?

If so - THANKS for the schematic diagram for the FOUR 807s
RF power amplifier. It should be posted at N6EV's web site soon.

Take a look!

Bry

```
*****
*** 73 from Radio AF4K / G3XLQ in Gaithersburg, MD USA *
** E-mail to: bry@mnsinc.com *
*** See the great ham radio resources at: *
** http://www.mnsinc.com/bry/ *
*****
```

Date: Sun, 5 Jan 1997 14:43:25 +0000
From: "Brian Carling" <bry@mail1.mnsinc.com>
To: W4AOS@aol.com
Subject: Re: 6SL7 Sensitive to light!
Message-ID: <199701052243.RAA23400@news2.mnsinc.com>

On 5 Jan 97 at 11:20, W4AOS@aol.com chatted merrily:

> Has anyone else on the list found tubes sensitive to light (ones
> which aren't supposed to be)?

Bob, I think it is more likely that the 6SL7 was responding somehow
to the electric field and or magnetic field of the flourescent lamp
and its ballast rather than to the light itself, but you never
know....

The important thing is it WORKS now!

```
*****
*** 73 from Radio AF4K / G3XLQ in Gaithersburg, MD USA *
** E-mail to: bry@mnsinc.com *
*** See the great ham radio resources at: *
** http://www.mnsinc.com/bry/ *
*****
```

Date: Sun, 5 Jan 1997 20:23:27 -0500 (EST)
From: Kim Herron <kherron@voyager.net>
To: Boatanchors@theporch.com
Cc: Glowbugs@theporch.com
Subject: Re:807's for sale
Message-ID: <199701060123.UAA01076@vixa.voyager.net>

Good Grief!!

I need a whole bunch more 807's than I have to satisfy all you power hungry Firebottle fans!! Neddless to say that they are spoken for. What amazes me is how FAST!!!

KIM
kherron@vixa.voyager.net

Date: Sun, 5 Jan 1997 20:41:25 -0500 (EST)
From: Kim Herron <kherron@voyager.net>
To: Boatanchors@theporch.com
Cc: Glowbugs@theporch.com
Subject: 807's for sale
Message-ID: <199701060141.UAA04401@vixa.voyager.net>

Hi Firebottle Fans,

Well, I'd like to thank all of you who took pity on my plight and saved me from sleeping in the new snowdrift outside my shack window. The 807's are gone, but don't dispair. I have many more tubes that need to find a home if I am to stay in mine. So be thinking about what you need and let me know privately, or just watch for postings from time to time. The entire garage is full and my wife wants the car inside out of the snow. I'm gonna need a lot of help.

KIM
kherron@vixa.voyager.net

Date: Sun, 5 Jan 1997 22:31:15 +0000
From: w8lrm@qtm.net
To: glowbugs@theporch.com
Subject: Heathkit Test Gear
Message-ID: <199701060330.WAA06562@garcon.qtm.net>

Hi Gang

Hit the delete key too fast the other night. Someone wondered about

old Heathkit test equipment. I have some here that is more that I need. If you are looking for a specific item, let me know. When the plant closed I got some of the test gear. I have now upgraded my bench and will part with the extras.

If you need something, drop a note and I'll see whats left. I do take some of these to area swap shops so what I have changes as time goes by.

Not long before Dayton !!

.....de....W8LRM.....Al

MI-QRP #41 QRP-L #532 QRP-ARCI #6524
G-QRP #4152 NOR-CAL #246 CQC #289 (EN62RE)
>From Southwest Michigans Sunset Coast:
Saint Joseph, Berrien County, Michigan !

Date: Sun, 5 Jan 1997 20:10:12 -0800
From: mjsilva@ix.netcom.com (michael silva)
To: glowbugs@theporch.com
Subject: Uses for a BC-221?
Message-ID: <199701060410.UAA23194@dfw-ix6.ix.netcom.com>

Hi all,

Kinda by accident I've picked up a BC-221 (in beautiful condition -- like it was made yesterday), and though I intend to keep it I'm not sure what glowbugging-related uses it can be put to. I do have the manual, but I'm looking for "other" uses that any of you might suggest.
Thanks.

73,
Mike, KK6GM

Date: Mon, 06 Jan 1997 01:26:30 -0500
From: Conard Murray <ws4s@InfoAve.Net>
To: glowbugs@theporch.com
Subject: 6V6 bias by Hank van Cleef
Message-ID: <2.2.32.19970106062630.00a87c70@infoave.net>

>I see a bunch of postings about getting audio out of old comm. sets,
>proper bias, and so forth. Many of these sets use a 6V6,

>single-ended.

>

>You can get into a lot of folderol setting up a 6V6, and reading the
>literature doesn't simplify things. I'll cut through some of this
>with my super-simple approach. This assumes that B+ in the set is 250
>volts (285 on the 6V6 is essentially the same), and that the output
>transformer is around 3000-4000 ohms.

>

>For good hard core class A operation, set the bias around -12.5 volts.
>Remember that this voltage is measured grid-to-cathode. This will
>give right on 50 ma. cathode current, of which 45 is plate current, 5
>screen current. This "10% I_k " for the screen is standard for beam
>tetrodes. Pentodes like 6F6 and 6K6 have a higher percentage in the
>screen. Audio drive should be 20 volts peak-peak, maximum. With a
>plain vanilla 8-inch speaker in an open box, that is a ton of audio
>power. That gives a range -2.5 volts to -22.5 volts on the grid,
>which is about all you can put on a 6V6 without approaching the
>near-cutoff distortion point too hard. Note that a 6V6 is essentially
>cut off at -25 volts on the grid, but is still conducting current at
>-30 volts. For a self-bias arrangement, 240 ohms is the correct value
>to use for this current level. A 25 mike bypass cap across the
>resistor will give you low degeneration down to reasonable frequencies
>for speech

>

>Now, if you want to reduce drain on the power supply, reduce heating,
>and so forth, you can bias the tube down as far as about -16 volts and
>still run class A at modest power output levels. This will still be
>genuine class A operation at audio drive up to 10 volts peak-peak.
>Anything between is a compromise, and generally gives quite acceptable
>performance for the type of listening a communications set is used
>for. Push-pull class AB1 is generally set up with around -17 volts of
>bias, giving I_k per tube around 34 ma., zero signal.

>

>Class B operation of a pair of 6V6's is with about -21 volts bias. If
>you run a single-ended tube that way, you are going to get
>wall-to-wall distortion. Remember that a tube does not cut off
>suddenly, like a transistor, and as I mentioned, a 6V6 still has
>transconductance between -25 and -30 volts, but it falls off so badly
>that you are going to see tremendous lopsidedness in the output
>current waveform between positive and negative current peaks.

>

>One way to linearize the output is to remove the cathode circuit
>bypass cap, which essentially puts the transconductance of the tube in
>series with the conductance of the resistor. This is a standard AA5
>gimmick, however, you will want to remember that the transconductance
>of a 50L6 is much higher than a 6V6, and the cathode resistor used is
>typically 150-180 ohms. The unbypassed resistance gives degeneration,
>so you need enough additional audio drive to compensate. The typical

>6SQ7 drive circuit only has about 30 volts of headroom in the usual
>zero-bias detector/avc/audio amp circuit, so if you need more audio
>drive, you need to rig up something else.

>

>So far as voltage charts in Sams and Rider manuals go, I sometimes
>wonder if these measurements were taken with a roulette wheel instead
>of a voltmeter. On a single-ended beam tetrode circuit, cathode
>current should be between 40 and 50 ma. zero signal, whether the tube
>is a 50L6 or a 6L6. Things don't change until you get into the
>807/6146/813 class. If it is very far different than that, you are
>going to get distortion and/or red-glowing plates.

>

>--

>=====

>Hank van Cleef

>E-mail vancleef@netcom.com or vancleef@tmn.com

>=====

>

>

.-.-.-.-.-
. Conard Murray WS4S Glowbugs listowner .
. 217 Dyer Avenue ws4s@infoave.net .
. Cookeville, TN 38501 615-526-4093 .
. <>< Wise men still seek Him <>< .
. -.-.-.-.-

Date: Mon, 06 Jan 97 06:21:40 CDT
From: "Cory Hine" <hinec@ccgate.dl.nec.com>
To: glowbugs@theporch.com, bry@mail1.mnsinc.com
Subject: Re[2]: Vfos and what would YOU do for a good general one?
Message-ID: <9700068525.AA852560686@smtpgw.ccgate.dl.nec.com>

All:

I think this is what has happened to much of our good Collins gear.
Central and South American military operations are using it. At least
that would account for some. Also the Japanese have an appreciation
for quality and performance.

Cory

----- Reply Separator -----
Subject: Re: Vfos and what would YOU do for a good general one?
Author: bry@mail1.mnsinc.com at smtlink-dl

Date: 1/3/97 6:35 PM

On 3 Jan 97 at 9:03, James C. Owen, III chatted merrily:

There must be 100's of junk Heath's out there if only
> we knew where. 73 Jim K4CGY

You know it would never surprise me if some enterprising sould
spirited them away to poorer countries over the past 20 years and
sold many of them there for a good profit.

Just my guess.

As for me, I am planning to go the opposite direction, and try to import some
English glowbugs/boatanchors in the near future!

Bry, G3XLQ

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*****  
*** 73 from Radio AF4K / G3XLQ in Gaithersburg, MD USA *  
** E-mail to: bry@mnsinc.com *  
*** See the great ham radio resources at: *  
** http://www.mnsinc.com/bry/ *  
*****
```

Date: Mon, 06 Jan 97 06:18:35 CDT
From: "Cory Hine" <hinec@ccgate.dl.nec.com>
To: bry@mnsinc.com
Cc: glowbugs@theporch.com
Subject: Re[4]: Vfos and what would YOU do for a good general one
Message-ID: <9700068525.AA852560506@smtpgw.ccgate.dl.nec.com>

This sounds like a great gadget. Is it expensive?

On 3 Jan 97 at 7:21, Cory Hine chatted merrily:

> Guys:
>
> A thought on stability... DPK builds a little curcuit that has a
> reference voltage to a varactor, which compensates the drift...
> Have a couple on order. Will tell you how they work on Collins
> transceivers! Might solve this decades old problem. Just a

> thought....
>
> Cory
>
> _____ Reply Separator
> _____ Subject: Re: Vfos

Bob and group:

\$75.00. It is claimed as a "no-mods" installation on
S-line gear. Will advise after I receive and test.

Cory

Date: Mon, 6 Jan 1997 09:53:17 -0500
From: larrys@fmis02.nsc.com (Larry Szendrei, NE1S)
To: gekko95@ix.netcom.com, glowbugs@theporch.com
Subject: Re: Little hummer
Message-ID: <97010609531764@fmis02.nsc.com>

Dave, WA7AWK wrote to Larry, NE1S:

>The Glowbugs group to which I subscribe was collectively so impressed with
>the little xmtr I built that Brian Carling, AF4K forwarded pix and schematic
>on to a homebrew web page for such stuff at:

> <http://www.barepower.net/~carreiro/Glowbugs/Glowbug.htm>

>If you go there, look for 'AI2G's 6L6 XMTR as built by Dave WB7AWK' and
>there are 3 views of the little hummer.

>So far worked most of the Western states, except Wyoming - NO ONE works
>Wyoming!. Had many, many QSO's with this rig, and it's now my favorite
>rig to run (until I build the next one!). I get a solid 14 watts of
>chirp free output on 7.047. If the sun ever has spots again, I could
>probably work you!

>Let me know what you think of the pix! After all, you're it's Daddy!

Hi, Dave...

I am sending a copy of this to the glowbugs list, as some of my comments may be

of general interest there, and for other reasons which will become obvious...

Checked out your pix on the web site... the little rig looks great! You did a wonderful job on it. And, no, I'm not it's Daddy, you definitely are! (Maybe I played the midwife's role? Or is this analogy running out of steam? Geez...)

Over the holidays I completed a "tritet" rig - a self-excited osc. CW transmitter, built on a breadboard. So far I have used a type '59 tube , as, I believe, the original did when it was published in QST way back when. But by changing the filament voltage, screen voltage (simply by pulling out the VR tube) and jumpering the plate connection I can plug in a 1625 and run more power (in theory, although I haven't tried it yet). With the type '59 it runs very low power, maybe ~2 watts out. I have made a few QSO's each on 80M and 40M with it, though. And guess what - my 40M QSO's were on (or at least within 1 Kc of) 7.047, as my only usable XTAL for 40M CW is 3023.5 Kc!!!

Conditions have not allowed my to raise the BA gang on 3.5795 yet with this rig, although I've heard and called NA4G and N9GT there - maybe when I plug in the 1625 I'll have better luck.

I wonder if anyone on the list has a copy of the original QST article describing the '59 tritet, so that I can compare operating parameters? I'm only drawing about 15 mA of plate current at ~450V, with 105 V on the screen (& suppressor, since they are tied together for tetrode operation of the '59 pentode), and would like to know if this is about right. Loading may not be optimized, as the 50 ohm coax (going to the antenna tuner) is connected to a fixed link built into the plug-in output tank coil (commercially manufactured by Bud). These coils have the link at the center, although the usual practice for a single-ended output such as this is to use coils with the output link at the "cold" end (I have a few of these, but have not tried them as I don't have a complete set for all the bands, and they base out differently). Comments???

The rig sounds great on 80M and 40M CW with FT-243 crystals, but drifts just a tad using the colorburst rock, which, I presume, is due to heating of the smaller crystal.

Anyway, Dave, great job on the 6L6 rig, and I definitely would like to hear it sometime...

73 and happy new year,
Larry, NE1S
larrys@fmis02.nsc.com

Date: Mon, 6 Jan 1997 12:19:35 -0500 (EST)
From: rdkeys@csemail.cropsci.ncsu.edu
To: mjsilva@ix.netcom.com

Cc: rdkeys@csemail.cropsci.ncsu.edu (), glowbugs@theporch.com
Subject: Re: Uses for a BC-221?
Message-ID: <9701061719.AA117439@csemail.cropsci.ncsu.edu>

>
> Hi all,
>
> Kinda by accident I've picked up a BC-221 (in beautiful condition --
> like it was made yesterday), and though I intend to keep it I'm not
> sure what glowbugging-related uses it can be put to. I do have the
> manual, but I'm looking for "other" uses that any of you might suggest.
> Thanks.
>
> 73,
> Mike, KK6GM
>
>

The best use for such a piece is a frequency spotter and monitor,
AKA ``growler''. That is what it was designed for. The output will
run a small speaker off a transformer from 600-2k ohms (a little 2-4
incher size, not a biggie). Great for sidetone generation in a glowbugge
station.

It can also be used as an external heterodyne on a regen receiver where
utmost stability needs to be had. One can copy rtty and sitor on a
regen receiver that way, quite well. I used to do that on my RAL
back when I ran a model 19. Crude, but works. I ran FD that way on
a RAL with a BC-375 --- worked fine.

It can be used to drive a transmitter as a vfo, but the output is quite
low, and needs a 1 or 2 step amplifier to boost it up to a usable 1-2 volts
of rf. There were some articles to do that, just after the war, about '48
or so. Several 6AC7 high gain amps were used to up the voltage to replace
a xtal.

It makes a good alignment generator for setting up anything that can use
a frequency from 125khz to 32mhz, although calibration is most accurate
up to 20 mhz.

That is all I can think of right off.

73/ZUT DE NA4G/Bob UP

Date: Mon, 06 Jan 1997 11:02:22 -0500
From: Roy Morgan <morgan@speckle.ncsl.nist.gov>
To: rdkeys@csemail.cropsci.ncsu.edu, glowbugs@theporch.com
Subject: Re: TV-7 tube tester fuse lamp bulb --- what is it?
Message-ID: <9701061602.AA02592@speckle.ncsl.nist.gov>

At 01:31 PM 1/2/97 -0600, Bob wrote:

>I have a nice TV-7 tube tester, but alas, no manual. Can anyone tell me
>what the value of that little fuse lamp bulb on the panel is? It looks
>like an ordinary auto dome light, but I am not sure.

It's a type 81 lamp.

(from memory): 6 volts, 1.15 amp, single button bayonet.

It is best to locate a proper replacement: the lamp warns you if your filament setting is dangerously wrong (like when you plug in a typw 1616 tube into the thing and set 6.3 volts, not 2.5 volts, thinking that what you have is a metal 6L6).

-- Roy Morgan/Building 820, Room 562/Gaithersburg MD 20899
(National Institute of Standards and Technology, formerly NBS)
301-975-3254 Fax: 301-948-6213 morgan@speckle.ncsl.nist.gov --

Date: Mon, 06 Jan 97 10:05:05 cst
From: mack@mails.imed.com
To: glowbugs@theporch.com, mjsilva@ix.netcom.com
Subject: Re[2]: Modulation and the Push-Pull Amp
Message-ID: <9700068525.AA852573777@mails.imed.com>

I concur with Mike's analysis. The crux of the situation is at low levels of audio in a AB type amplifier vs a class C P-P RF amp.

In the sand state world we call the hum on the DC power lines for the audio case a common mode signal. Common mode signals don't propagate through the transformer because there is no net difference across the transformer. There is also not enough of a change in plate voltage to affect the gain of either tube and thus convert the common mode signal into a differential mode signal. You never run an audio amp at a continuous full signal value so that even the small ripple on the power supply can affect the maximum available signal.

The situation is different even for a class AB P-P RF stage. In this case the plate voltage swing *is* large enough to effect the maximum available voltage swing. I suspect that at *very* low audio modulation levels, you *would* see some common mode modulation rejection in a class AB P-P amp, but it would be unlikely for the reason Mike states in a class C P-P amp.

Is that as clear as mud?

Ray Mack
WD5IFS
mack@mails.imed.com

Well, this is far from rigorous, but it seems to me that the noise cancellation would only occur when both tubes were conducting, otherwise the tube in cutoff could never supply an (almost) equal but opposite signal to that supplied by the "on" tube. Since noise and hum would be most noticeable at low output levels (where both tubes *would* be conducting in an AB amplifier), the effect is probably most noticed where it's most needed.

This is very different from a P-P RF amplifier, where both tubes are class C so they are never conducting at the same time. There the effect on RF output of modulating the plate voltage would seem to be the same as with a single-ended class C stage.

Or maybe I got it all wrong...

73,
Mike, KK6GM

Date: Mon, 6 Jan 1997 08:39:14 +0000
From: "Brian Carling" <bry@mail1.mnsinc.com>
To: glowbugs@theporch.com
Subject: Re: Uses for a BC-221?
Message-ID: <199701061638.LAA17863@news2.mnsinc.com>

On 5 Jan 97 at 22:13, michael silva chatted merrily:

> Hi all,
>
> Kinda by accident I've picked up a BC-221 (in beautiful condition --
> like it was made yesterday), and though I intend to keep it I'm not

> sure what glowbugging-related uses it can be put to. I do have the
> manual, but I'm looking for "other" uses

Yes Mike I have often wondered about that.
I had one many years ago and no one ever suggested a use for it.
I eventually traded it, but I wonder if it could be made into a VFO
somehow?!

Speaking of great old boatanchor VFOs, I once possessed a Meissner
Signal Shifter - now THAT was a VFO!! The darn thing used: *** AN 807
** as the tube - WOW! SERIOUS power for a VFO, he he!

*** 73 from Radio AF4K / G3XLQ in Gaithersburg, MD USA *
** E-mail to: bry@mnsinc.com *
*** See the great ham radio resources at: *
** <http://www.mnsinc.com/bry/> *

Date: Mon, 6 Jan 1997 06:01:29 -0600 (CST)
From: Kevin Pease <hamradio@mm1001.theporch.com>
To: Multiple recipients of list <glowbugs@theporch.com>
Subject: Re: Receiver building help...
Message-ID: <Pine.LNX.3.91.970106055352.29904B-1000000@mm1001.theporch.com>

I too have been looking at the receiver in the 62 and 63 handbooks. It
uses a 6U8 tube in the mixer and detector. I have heard that 6U8's can be
troublemakers. I also don't have any. won't a 6EA8 substitute for the 6U8
and be more reliable ?? Also what other tubes would work in that
application ?

I have been giving some thought to adding another 6U8 and a 12BY7 and
6146 or maybe a sweep tube to the circuit and making a simple
transceiver for 80 and 40 Meters out of the design. Heck with a speech
amplifier and screen modulation or an outboard amplifier and plate
modulation It could also run AM. The TR switching would be with a RELAY
and switch and could run PTT if setup for AM. Might be an interesting all
purpose simple Glowbug project for the glowbug group.

Kevin Pease WB0JZG
Mount Juliet, TN.

Date: Mon, 6 Jan 1997 14:58:09 -0500 (EST)
From: rdkeys@csemail.cropsci.ncsu.edu
To: bry@mail1.mnsinc.com
Cc: rdkeys@csemail.cropsci.ncsu.edu (), glowbugs@theporch.com
Subject: Re: Uses for a BC-221?
Message-ID: <9701061958.AA117539@csemail.cropsci.ncsu.edu>

> > Kinda by accident I've picked up a BC-221 (in beautiful condition --
> > like it was made yesterday), and though I intend to keep it I'm not
> > sure what glowbugging-related uses it can be put to. I do have the
> > manual, but I'm looking for "other" uses
>
> Yes Mike I have often wondered about that.
> I had one many years ago and no one ever suggested a use for it.
> I eventually traded it, but I wonder if it could be made into a VFO
> somehow?!

See the Editors and Engineers 11th edition radio handbook and qst's of
about 1948 or so. It is listed in the qst searches for bc-221 or surplus.

> Speaking of great old boatanchor VFOs, I once possessed a Meissner
> Signal Shifter - now THAT was a VFO!! The darn thing used: *** AN 807
> ** as the tube - WOW! SERIOUS power for a VFO, he he!

Big Bertha Radiomarine uses a 50 watt vfo 807 oscillator. It works fine.
The Meissner Signal Shifty used a 6F6 to drive a 6L6 and then the 807,
if my memory is not too rusty. That is a basic transmitter in a vfo box.
Big Bertha's is in one stage, directly from an 807 at about 400 volts dc.
One can get about 5-7 watts output to drive a following stage, easily,
and stably. Look at Sterling's Radio Handbook, 2nd edition, 1928, and
RCA's high power oscillator design was originated in the famous ET-3655,
which used a 75 watt vfo (860 tube). Dow did likewise, in his electron
coupled oscillators in 1932. RCA was still using the same basic high
power vfo design from 1927 in the Radiomarine gear up through the 1950's.
It must have been a viable design to live that long, commercially. The
only requirement compared to a small vfo is bigger parts and bigger voltages.
Big Bertha's vfo is a cast aluminum box about a foot cubed, with the 807
sticking out one corner so the output can be easily taken up to the next
stage, one floor up in the chassis. It floats on rubber cushions and
is a very clean, simple design, even for 1938. For particulars of the
schematic, etc., see Nihlson and Hornung's Practical Radio, 1943.

73/ZUT DE NA4G/Bob UP

Date: Mon, 6 Jan 1997 13:51:20 -0500
From: TMOLL@aol.com
To: morgan@speckle.ncsl.nist.gov
Subject: Re: NC-183 Restoration
Message-ID: <970106134832_877617682@emout19.mail.aol.com>

Roy,

Thank you for your reply to my post on the NC-183. Your obvious intimate knowledge of this BA is astounding! The many suggestions you and others provided really round out my understanding of the task and how to go about it. It is truly kind of you to take the time to write an "epistle" of this magnitude in interest of keeping another BA alive! It looks to me like you should write an article on this subject that would be of general interest to anyone pursuing something like this, and get it published. Since you seem to know this radio so well, I am curious of your (or anyone else's) opinion on where this radio stacks up against other communications receivers in terms of performance. It always seemed to me to be a decent servicable receiver, but "nothing special," especially in the sensitivity area. What would its peers be? Thanks again.

Tom NOBS

End of GLOWBUGS Digest 406
